

**BIOLOGICAL ASSESSMENT  
PROTECTION OF BALD EAGLE NEST TREE  
CEDAR COUNTY, NEBRASKA  
APRIL 2000**

## **INTRODUCTION**

In February of 2000, the U.S. Army Corps of Engineers (Corps) was contacted about a potential bald eagle (*Haliaeetus leucocephalus*) nest in a tree that was in eminent danger of falling into the Missouri River as a result of stream bank erosion. This tree is located at approximate river mile 796.5, near St. Helena, in the NW1/4 of Sec. 28, T93N, R54W, Cedar County, Nebraska. Personnel from the Corps visited the site along with the landowner on March 9, 2000, and confirmed that the nest was a bald eagle nest. During the site visit, measurements of the eroding riverbank were also taken and it was determined that the nest tree was approximately 20 feet from the actively eroding bank. For this reason, the Corps proposes to stabilize the riverbank adjacent to the nest tree in order to prevent it from eroding into the river. The purpose of the project is to protect the newly built nest and tree from erosion in order to insure the successful reproduction of bald eagles, which are a Federally listed threatened species. Because this tree is located so close to the actively eroding riverbank, the Corps believes that the bank must be stabilized as soon as possible in order to prevent the bank from eroding to a degree beyond which the tree could no longer be saved without damage occurring to the roots.

A biological assessment (BA) is prepared to facilitate compliance with the Endangered Species act of 1973. The purpose of this BA is to evaluate the potential effects of the proposed action on the Federally listed threatened bald eagle, and to determine whether bald eagles or their habitat are likely to be adversely impacted by the proposed action.

## **PROJECT PURPOSE AND DESCRIPTION**

The proposed project would be designed to prevent the riverbank adjacent to the nest tree from eroding, and causing the tree and nest to fall into the river. The proposed project would consist of building a stone revetment along 220 feet of riverbank. A 50-foot long stone refusal would be buried in the 15-foot high bank at the upstream end of the revetment. The project would require approximately 880 tons of stone, along with up to 500 cubic yards of excavation. All stone placed above the ordinary high water mark would be covered with topsoil and planted with native vegetation. Timing of construction would depend upon whether or not the nest is occupied. No construction would occur until eagle activity at the nest ceases. **Appendix A** contains plates showing the location of the project and the proposed construction plans.

## **DESCRIPTION OF PROJECT AREA**

The proposed project is located within the 59-mile reach of the Missouri River known as the Missouri National Recreational River, which is a segment of the National

Wild and Scenic River System. This stretch of river is located in the middle portion of the 2,300-mile-long Missouri River and flows through the upper dissected till plains of the Central Lowland Province.

The 59-mile reach of the Missouri National Recreational River begins downstream of Gavins Point Dam, and extends to the downstream terminus of Ponca State Park, RM 751.9. The river channel forms the approximate boundary between the states of Nebraska and South Dakota. The corridor of the river segment includes the river channel, selected slopes visible from the river, and lands above the riverbank needed to preserve the river characteristics. With the exception of lands under the mean high-water mark of the river, public access areas on both sides, wildlife management areas on the South Dakota side, and Ponca State Park on the Nebraska side, most of the corridor is in private ownership.

The proposed project is located on the right bank of the Missouri River along the riverfront of private land in Cedar County Nebraska at approximate river mile 796.5. The site was visited by Corps employees on March 9, 2000, and the nest was confirmed to be that of a bald eagle. The nest tree is a tall cottonwood located in a small grove of about 18 trees located between an alfalfa field and the Missouri River. **Appendix B** contains photographs of the bald eagle nest and the eroding riverbank. The land owner stated that he thought the eagles started building the nest about 1.5 to 2 years ago. The nest tree is located approximately 20 feet from the riverbank, and the riverbank is 18 to 20 feet high. Three beaver slides were observed in close proximity to the nest tree and several adjacent trees had been felled or damaged by beavers.

The habitat present on the land adjacent to the nest tree is a mosaic of cottonwood dogwood habitat, corn, alfalfa, grassland, and an old abandoned river channel. A large number of white-tailed deer and some wild turkeys were observed during the site visit. A second, older bald eagle nest is located directly across the river on the South Dakota side. This site is located approximately one mile from the proposed construction site. According to Jay Peterson of the U.S. Fish and Wildlife Service (FWS) at the Lake Andes National Wildlife Refuge, this nest has been around for a long time and has been producing eagles every year for about the last 10 years. On the day of the site visit, eight eagles were seen in the area, two of which were at the nest on the South Dakota side of the river.

## **FEDERALLY LISTED THREATENED/ENDANGERED SPECIES**

The purpose of this project is to protect a bald eagle nest tree from eroding into the river, however, the work required to protect the nest tree has the potential to adversely impact the nesting eagles if precautions are not taken to avoid disturbing the eagles. Bald eagles are very sensitive to human disturbance during the nesting season. Human disturbances near the nest tree could cause the eagles to abandon the nest along with any eggs or young that are in the nest. Personnel from the U.S. Fish and Wildlife Service visited the site by boat on March 22, 2000. During their site visit, it was determined that a pair of eagles were using the nest and they appeared to be incubating eggs. On April 4,

2000 personnel of the USFWS performed an aerial bald eagle nest survey along the Missouri River. This survey confirmed that eagles were indeed incubating eggs on the nest. During this survey, it was also confirmed that no eagles were using the nest on the South Dakota side of the river. Because the nest is currently being used, the USFWS has recommended that no construction activities should take place until eagle activity at the nest ceases, or the young eagles have fledged. Young eagles typically fledge between late July and early September. The USFWS has also recommended that people should avoid getting any closer than 150 yards from the nest in order to avoid disturbing the nesting eagles.

## **EFFECTS OF PROPOSED PROJECT ON LISTED SPECIES**

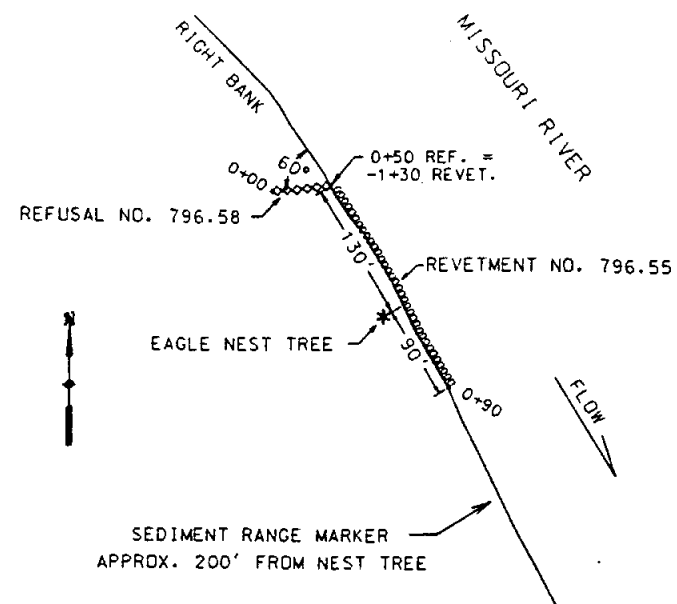
The sole purpose of this project is to benefit bald eagles by helping to ensure successful reproduction at this nest site. However, if construction activities take place during the nesting season, eagles could be adversely impacted by disturbance, or interruption of their normal activities. For this reason, construction activities would be timed to avoid disturbing or interrupting bald eagle activity at the nest. Timing construction to avoid interrupting bald eagle nesting activities would insure that the proposed project would not adversely impact bald eagles or their habitat, and would in fact benefit bald eagles. Therefore, this project is not likely to adversely impact bald eagles.

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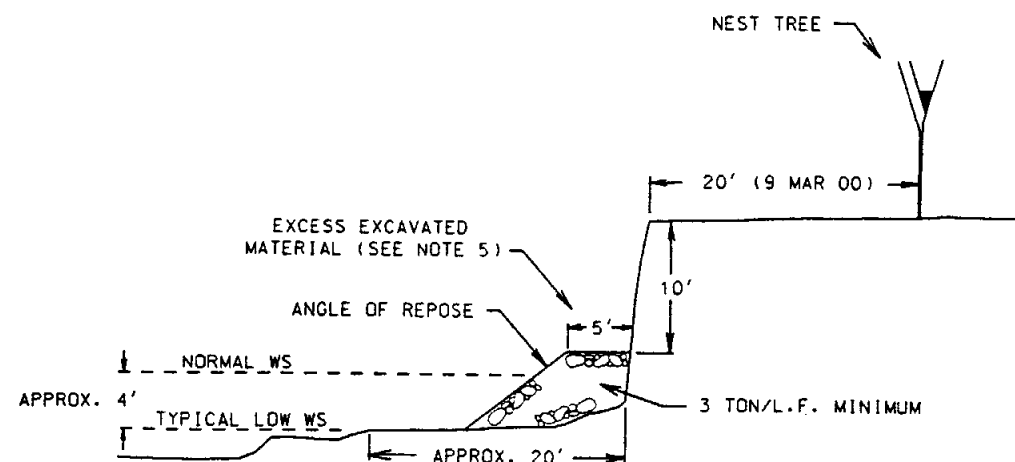
**APPENDIX A**

**PROJECT LOCATION**  
**AND**  
**PROPOSED CONSTRUCTION PLANS**



PLAN VIEW

NOT TO SCALE

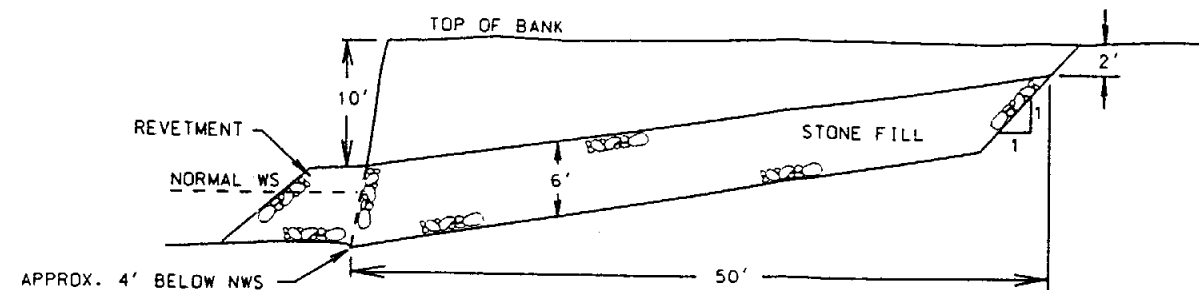


REVTMENT SECTION

NOT TO SCALE

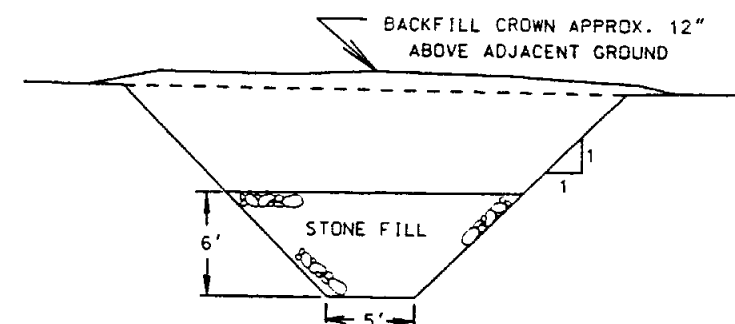
NOTES:

1. REVETMENT STATION 0+00 IS DIRECTLY RIVERWORD OF THE NEST TREE.
2. REVETMENT STATION -1+30 = REFUSAL STATION 0+50.
3. WORK SHALL BE EXECUTED IN A MANNER THAT WILL MINIMIZE DISTURBANCE TO THE STANDING TREES IN THE VICINITY OF OF THE NEST TREE.
4. DOWNED TREES IN THE REVETMENT ALIGNMENT SHALL BE MOVED RIVERWORD, TO ALLOW FOR CORRECT PLACEMENT OF THE STONE.
5. EXCESS MATERIAL FROM THE REFUSAL TRENCH SHALL BE PLACED ATOP THE 5-FOOT WIDE CROWN OF THE REVETMENT, PROVIDED THAT THIS CAN BE ACHIEVED WITHOUT DAMAGING ANY STANDING TREES.



REFUSAL - PROFILE VIEW

NOT TO SCALE



REFUSAL - CROSS SECTION

NOT TO SCALE

CONSTRUCTION SCHEDULE

STRUCTURE	LENGTH	STATIONING	DESCRIPTION	R. MILE	NORMAL WS	STONE	EXCAVATION
REF 796.58	50 ft.	0+00 to 0+50	REFUSAL	796.6	1148.5'	210 tons	410 c.y.
REV 796.55	220 ft.	-1+30 to 0+90	REVTMENT	796.5	1148.5'	670 tons	
TOTALS	270 ft.					880 tons	410 c.y.

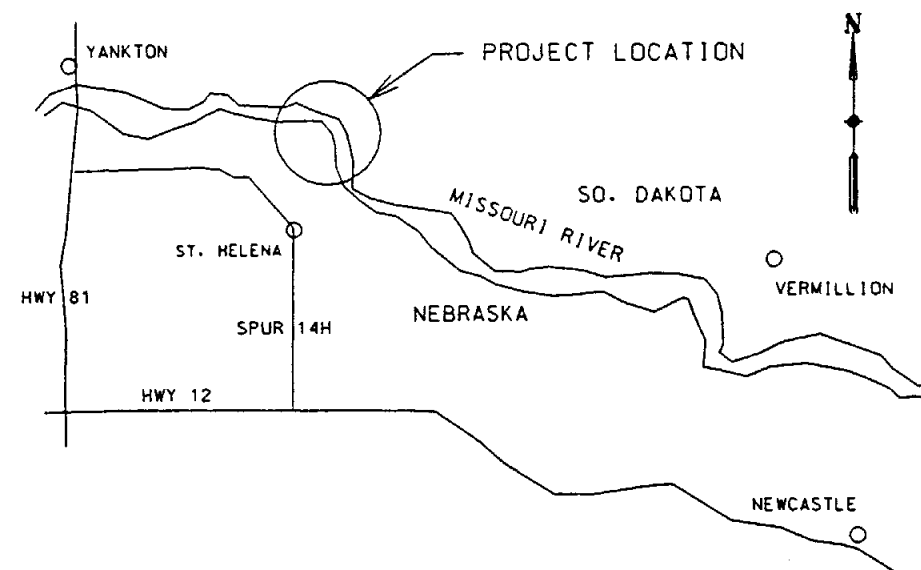
SS - THINK VALUE ENGINEERING - SS

Symbol	Descriptions	Date	Approved

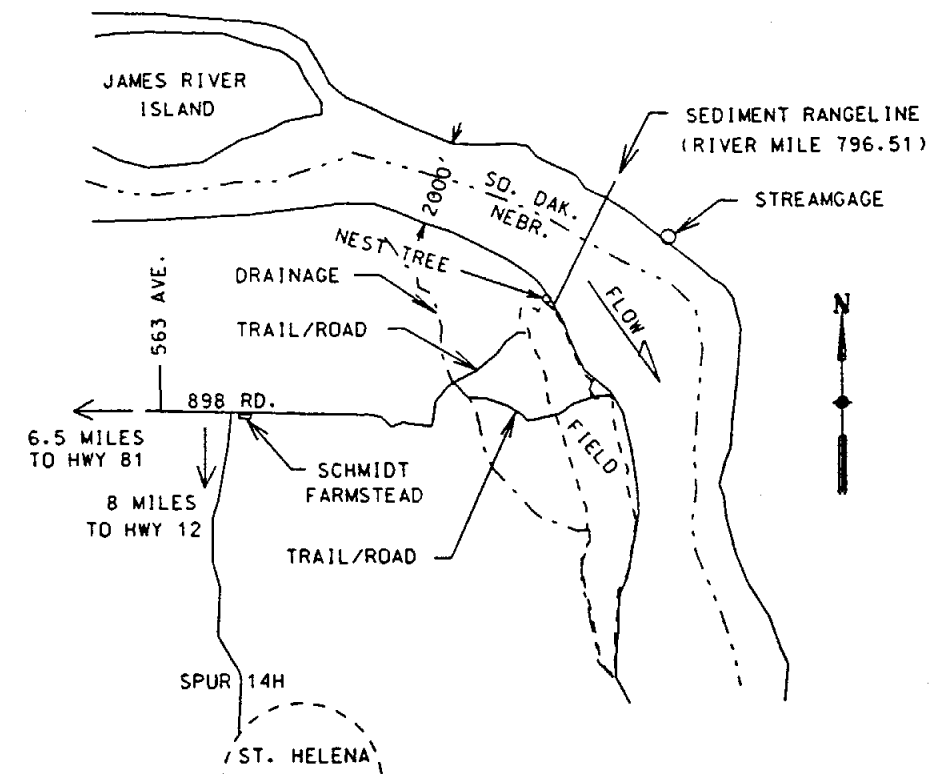
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
OMAHA, NEBRASKA

Designed by: J.J.T.	MISSOURI RIVER, MILE 796.6, RIGHT BANK <b>MISSOURI NATIONAL RECR. RIVER</b> <b>RESOURCE PROTECTION</b> CEDAR COUNTY, NEBRASKA PLAN, SECTION AND PROFILE VIEWS
Drawn by: J.J.T.	
Checked by: J.I.R.	
Reviewed by:	

Plot Scale Ratio: NOT TO SCALE  
Design File: pr02pl.dgn  
Spec. No.:  
Date: MARCH 2000  
Sheet reference number:



LOCATION MAP



VICINITY MAP

Revisions			
Symbol	Description	Date	Approved

U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
OMAHA, NEBRASKA

Designed by: J.J.T.	MISSOURI RIVER, MILE 796.6, RIGHT BANK <b>MISSOURI NATIONAL RECR. RIVER RESOURCE PROTECTION</b> CEDAR COUNTY, NEBRASKA LOCATION AND VICINITY MAPS
Drawn by: J.J.T.	
Checked by: J.E.R.	

Reviewed by:	Plot Scale Ratio: NOT TO SCALE	Date: MARCH 2000	Sheet reference number:  <b>X</b>
Submitted by:	Spec. No.: DACH 46	Drawing Code:	
Contract No.: DACH 46	PLATE 1		



**APPENDIX B**

**SITE PHOTOGRAPHY**



View from the river, looking up at new eagle nest. Note the distance from the unprotected eroding bank and the beaver damage to the tree in the foreground.



View looking east at new eagle nest on Nebraska side



View looking east from alfalfa field at new eagle nest on Nebraska side.